WHAT IS CLAIMED:

1. A method of increasing the efficacy of agricultural chemicals comprising:

applying at least one agricultural chemical to a plant or plant seed under conditions effective for the agricultural chemical to perform its intended functions and

applying at least one hypersensitive response elicitor protein or polypeptide to said plant or plant seed under conditions effective to increase the efficacy of the agricultural chemical.

2. The method according to claim 1, wherein said plant is treated during said applying.

3. The method according to claim 1, wherein said plant seed is treated during said applying, said method further comprising:

planting said treated plant seed in natural or artificial soil and

propagating a plant from said treated plant seed planted in said natural or artificial soil.

4. The method according to claim 1, wherein said plants or plant seeds are selected from the group consisting of canola, alfalfa, rice, wheat, barley, rye, cotton, sunflower, peanut, corn, potato, sweet potato, bean, pea, chicory, lettuce, endive, cabbage, brussel sprout, beet, parsnip, cauliflower, broccoli, turnip, radish, spinach, onion, garlic, eggplant, pepper, celery, carrot, squash, pumpkin, zucchini, cucumber, apple, pear, melon, citrus, strawberry, grape, raspberry, pineapple, soybean, tobacco, tomato, sorghum, avocado, sugarcane, *Saintpaulia*, petunia, pelargonium, poinsettia, chrysanthemum, carnation, and zinnia.

5. The method according to claim 1, wherein said applying the agricultural chemical is conducted simultaneously or independently of said applying the hypersensitive response elicitor protein or polypeptide.

6. The method according to claim 1, wherein the agricultural chemical is selected from the group consisting of pesticides, fertilizers, and plant growth regulators.

7. The method according to claim 6, wherein the agricultural chemical is a pesticide selected from the group consisting of insecticides, fungicides, herbicides, acaricides, virucides, and nematicides.

8. The method according to claim 7, wherein the pesticide is a insecticide containing an active ingredient selected from the group consisting of carbamates, organochlorines, nicotinoids, phosphoramidothioates, organophosphates, and pyrethroids.

9. The method according to claim 8, wherein the insecticide is an aldricarb carbamate.

10. The method according to claim 8, wherein the insecticide is an endosulfan organochlorine.

11. The method according to claim 8, wherein the insecticide is an imidacloprid nicotinoid.

12. The method according to claim 8, wherein the insecticide is an acephate phosphoramidothioate.

13. The method according to claim 8, wherein the insecticide is a dimethoate organophosphate.

14. The method according to claim 8, wherein the insecticide is a permethrin pyrethroid.

15. The method according to claim 7, wherein the pesticide is a fungicide containing an active ingredient selected from the group consisting of aliphatic nitrogens, benzimidazoles, dicarboximides, dithiocarbamates, imidazoles, strobins, anilides, aromatics, sulfur derivatives, and copper derivatives.

16. The method according to claim 15, wherein the fungicide is a cymoxanil aliphatic nitrogen.

17. The method according to claim 15, wherein the fungicide is a thiabendazole benzimidazole.

18. The method according to claim 15, wherein the fungicide is a dicarboximide selected from the group consisting of vinclozolin and captan.

19. The method according to claim 15, wherein the fungicide is a dithiocarbamate selected from the group consisting of mancozeb, maneb, metiram, thiram, and ziram.

20. The method according to claim 15, wherein the fungicide is an iprodione imidazole.

21. The method according to claim 15, wherein the fungicide is an azoxystrobin strobin.

22. The method according to claim 15, wherein the fungicide is a metalaxyl anilide.

23. The method according to claim 15, wherein the fungicide is as a chlorothalonil aromatic.

24. The method according to claim 7, wherein the pesticide is a herbicide containing an active ingredient with a site of action classification number selected from the group consisting of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 22, 28, and combinations thereof.

25. The method according to claim 24, wherein the active ingredient has a site of action classification number 1 and is selected from the group consisting of sethoxydim and quizalofop-P.

26. The method according to claim 24, wherein the active ingredient has a site of action classification number 2 and is selected from the group consisting of primisulfuron and imazamox.

27. The method according to claim 24, wherein the active ingredient has a site of action classification number 3 and is selected from the group consisting of trifluralin and pendimethalin.

28. The method according to claim 24, wherein the active ingredient has a site of action classification number 4 and is selected from the group consisting of 2,4-D and dicamba.

29. The method according to claim 24, wherein the active ingredient has a site of action classification number 5 and is selected from the group consisting of atrazine and cyanazine.

30. The method according to claim 24, wherein the active ingredient has a site of action classification number 6 and is bromoxylin.

31. The method according to claim 24, wherein the active ingredient has a site of action classification number 7 and is diuron.

32. The method according to claim 24, wherein the active ingredient has a site of action classification number 8 and is EPTC.

33. The method according to claim 24, wherein the active ingredient has a site of action classification number 9 and is glyphosate.

34. The method according to claim 24, wherein the active ingredient has a site of action classification number 10 and glufosinate.

35. The method according to claim 24, wherein the active ingredient has a site of action classification number 12 and is norflurazon.

36. The method according to claim 24, wherein the active ingredient has a site of action classification number 13 and is clomazone.

37. The method according to claim 24, wherein the active ingredient has a site of action classification number 14 and is fomesafen.

38. The method according to claim 24, wherein the active ingredient has a site of action classification number 15 and is selected from the group consisting of alachlor and acetochlor.

39. The method according to claim 24, wherein the active ingredient has a site of action classification number 22 and is diquat.

40. The method according to claim 24, wherein the active ingredient has a site of action classification number 28 and is isoxaflutole.

41. The method according to claim 6, wherein the agricultural chemical is a plant growth regulator selected from the group consisting of auxins, cytokinins, defoliants, ethylene releasers, gibberellins, growth inhibitors, growth retardants, growth stimulators, (S)-trans-2-Amino-4-(2-aminoethoxy)-3-butenoic acid hydrochloride, and N-(phenylmethyl)-1H-purine-6-amine.

42. The method according to claim 41, wherein the plant growth regulator is an auxin selected from the group consisting of 1-naphthaleneacetic acid and indole-3-butyric acid.

43. The method according to claim 41, wherein the plant growth regulator is a zeatin cytokinin.

44. The method according to claim 41, wherein the plant growth regulator is a defoliant selected from the group consisting of ethephon and thidiazuron.

45. The method according to claim 41, wherein the plant growth regulator is a growth inhibitor selected from the group consisting of mepiquat and maleic hydrazide.

46. The method according to claim 41, wherein the plant growth regulator is a gibberellic acid gibberellin.

47. The method according to claim 41, wherein the plant growth regulator is a forchlorfenuron growth stimulator.

48. The method according to claim 6, wherein the agricultural chemical is a fertilizer containing plant nutrients selected from the group consisting of sulfur, phosphorus, magnesium, calcium, potassium, nitrogen, molybdenum, copper, zinc, manganese, iron, boron, cobalt, chlorine, and combinations thereof.

49. The method according to claim 1, wherein the hypersensitive response elicitor or polypeptide is derived from a species of pathogens selected from the group consisting of *Erwinia*, *Pseudomonas,* and *Xanthomonas*.

50. The method according to claim 49, wherein the hypersensitive response elicitor protein or polypeptide is derived from an *Erwinia* species selected from the group consisting of *Erwinia amylovora, Erwinia carotovora, Erwinia chrysanthemi,* and *Erwinia stewartii*.

51. The method according to claim 49, wherein the hypersensitive response elicitor protein or polypeptide is derived from a *Pseudomonas* species selected from the group consisting of *Pseudomonas syringae* and *Pseudomonas solanacearum*.

52. The method according to claim 49, wherein the hypersensitive response elicitor or polypeptide is derived from *Xanthomonas campestris*.

53. A method of increasing the efficacy of agricultural chemicals comprising:

applying at least one agricultural chemical to a transgenic plant or transgenic seed transformed with a nucleic acid molecule which encodes a hypersensitive response elicitor protein or polypeptide, wherein the agricultural chemical is applied under conditions effective for the agricultural chemical to perform its intended functions but with increased efficacy.

54. A method according to claim 53, wherein a transgenic plant is provided.

55. A method according to claim 53, wherein a transgenic plant seed is provided, said method further comprising:

planting the transgenic seed in natural or artificial soil and

propagating plants from said transgenic seed planted in natural or artificial soil.

56. The method according to claim 53, wherein the agricultural chemical is selected from the group consisting of pesticides, fertilizers, and plant growth regulators.

57. The method according to claim 56, wherein the agricultural chemical is a pesticide selected from the group consisting of insecticides, fungicides, herbicides, acaricides, avicides, virucides, and nematicides.

58. The method according to claim 57, wherein the pesticide is an insecticide containing an active ingredient selected from the group consisting of

carbamates, organochlorines, nicotinoids, phosphoramidothioates, organophosphates, and pyrethroids.

59. The method according to claim 58, wherein the insecticide is an aldricarb carbamate.

60. The method according to claim 58, wherein the insecticide is an endosulfan organochlorine.

61. The method according to claim 58, wherein the insecticide is an imidacloprid nicotinoid.

62. The method according to claim 58, wherein the insecticide is an acephate phosphoramidothioate.

63. The method according to claim 58, wherein the insecticide is a dimethoate organophosphate.

64. The method according to claim 58, wherein the insecticide is a permethrin pyrethroid.

65. The method according to claim 57, wherein the pesticide is a fungicide containing an active ingredient selected from the group consisting of aliphatic nitrogens, benzimidazoles, dicarboximides, dithiocarbamates, imidazoles, strobins, anilides, aromatics, sulfur derivatives, and copper derivatives.

66. The method according to claim 65, wherein the fungicide is a cymoxanil aliphatic nitrogen.

67. The method according to claim 65, wherein the fungicide is a thiabendazole benzimidazole.

68. The method according to claim 65, wherein the fungicide is a dicarboximide selected from the group consisting of vinclozolin and captan.

69. The method according to claim 65, wherein the fungicide is a dithiocarbamate selected from the group consisting of mancozeb, maneb, metiram, thiram, and ziram.

70. The method according to claim 65, wherein the fungicide is a iprodione imidazole.

71. The method according to claim 65, wherein the fungicide is a azoxystrobin strobin.

72. The method according to claim 65, wherein the fungicide is a metalaxyl anilide.

73. The method according to claim 65, wherein the fungicide is a chlorothalonil aromatic.

74. The method according to claim 57, wherein the pesticide is an herbicide containing an active ingredient with a site of action classification number selected from the group of consisting of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 22, 28 and combinations thereof.

75. The method according to claim 74, wherein the active ingredient has a site of action classification number 1 and is selected from the group consisting of sethoxydim and quizalofop-P.

76. The method according to claim 74, wherein the active ingredient has a site of action classification number 2 and is selected from the group consisting of primisulfuron and imazamox.

77. The method according to claim 74, wherein the active ingredient has a site of action classification number 3 and is selected from the group consisting of trifluralin and pendimethalin.

78. The method according to claim 74, wherein the active ingredient has a site of action classification number 4 and is selected from the group consisting of 2,4-D and dicamba.

79. The method according to claim 74, wherein the active ingredient has a site of action classification number 5 and is selected from the group consisting of atrazine and cyanazine.

80. The method according to claim 74, wherein the active ingredient has a site of action classification number 6 and is bromoxylin.

81. The method according to claim 74, wherein the active ingredient has a site of action classification number 7 and is diuron.

82. The method according to claim 74, wherein the active ingredient has a site of action classification number 8 and is EPTC.

83. The method according to claim 74, wherein the active ingredient has a site of action classification number 9 and is glyphosate.

84. The method according to claim 74, wherein the active ingredient has a site of action classification number 10 and is glufosinate.

85. The method according to claim 74, wherein the active ingredient has a site of action classification number 12 and is norflurazon.

86. The method according to claim 74, wherein said active ingredient having said site of action classification number 13 is clomazone.

87. The method according to claim 74, wherein the active ingredient has a site of action classification number 14 and is fomesafen.

88. The method according to claim 74, wherein the active ingredient has a site of action classification number 15 and is selected from the group consisting of alachlor and acetochlor.

89. The method according to claim 74, wherein the active ingredient has a site of action classification number 22 and is diquat.

90. The method according to claim 74, wherein the active ingredient has a site of action classification number 28 and is isoxaflutole.

91. The method according to claim 56, wherein the agricultural chemical is a plant growth regulator selected from the group consisting of auxins, cytokinins, defoliants, ethylene releasers, gibberellins, growth inhibitors, growth retardants, growth stimulators, (S)-trans-2-Amino-4-(2-aminoethoxy)-3-butenoic acid hydrochloride, and N-(phenylmethyl)-1H-purine-6-amine.

92. The method according to claim 91, wherein the plant growth regulator is an auxin selected from the group consisting of 1-naphthaleneacetic acid and indole-3-butyric acid.

93. The method according to claim 91, wherein the plant growth regulator is a zeatin cytokinin.

94. The method according to claim 91, wherein the plant growth regulator is a defoliant selected from the group consisting of ethephon and thidiazuron.

95. The method according to claim 91, wherein the plant growth regulator is a growth inhibitor selected from the group consisting of mepiquat and maleic hydrazide.

96. The method according to claim 91, wherein the plant growth regulator is a gibberellic acid gibberellin.

97. The method according to claim 91, wherein the plant growth regulator is a forchlorfenuron growth stimulator.

98. The method according to claim 56, wherein the agricultural chemical is a fertilizer containing plant nutrients selected from the group consisting of sulfur, phosphorus, magnesium, calcium, potassium, nitrogen, molybdenum, copper, zinc, manganese, iron, boron, cobalt, chlorine, and combinations thereof.

99. The method according to claim 53, wherein said transgenic plant or transgenic seed is selected from the group consisting of canola, alfalfa, rice, wheat, barley, rye, cotton, sunflower, peanut, corn, potato, sweet potato, bean, pea, chicory, lettuce, endive, cabbage, brussel sprout, beet, parsnip, cauliflower, broccoli, turnip, radish, spinach, onion, garlic, eggplant, pepper, celery, carrot, squash, pumpkin, zucchini, cucumber, apple, pear, melon, citrus, strawberry, grape, raspberry, pineapple, soybean, tobacco, tomato, sorghum, avocado, sugarcane, *Saintpaulia*, petunia, pelargonium, poinsettia, chrysanthemum, carnation, and zinnia.

100. The method according to claim 53, wherein the hypersensitive response elicitor protein or polypeptide is derived from the species of pathogen selected from the group consisting of *Erwinia*, *Pseudomonas*, and *Xanthomonas*.

101. The method according to claim 100, wherein the hypersensitive response elicitor or polypeptide is derived from an *Erwinia* species selected from the group consisting of *Erwinia amylovora, Erwinia carotovora, Erwinia chrysanthemi,* and *Erwinia stewartii*.

102. The method according to claim 100, wherein the hypersensitive response elicitor or polypeptide is derived from a *Pseudomonas* species selected from the group consisting of *Pseudomonas syringae* and *Pseudomonas solanacearum*.

103. The method according to claim 100, wherein the hypersensitive response elicitor or polypeptide is derived from *Xanthomonas campestris*.